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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,028	01/18/2006	Gerhard Reidlinger	11885-00076-US	9069

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EXAMINER

TISCHLER, FRANCES

ART UNIT	PAPER NUMBER
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4171

MAIL DATE	DELIVERY MODE
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04/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,028	Applicant(s) REIDLINGER ET AL.	
	Examiner Frances Tischler	Art Unit 4171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 8 and 9 is/are allowed.
- 6) ☐ Claim(s) 1-7 and 10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/18/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restriction

1. During a telephone conversation with Richard Beck on March 25, 2008 a provisional election was made with traverse to prosecute the invention of Group II, claims 7 - 10. However, upon searching the prior art, examiner found no undue burden in prosecuting the entire case. Examiner is, therefore, withdrawing the restriction requirement.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 8-10 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1: It is unclear if applicant meant that “hydroxyl-functional binder components ABC” is actually a component or if ABC is made of components A, B, and C and, specifically, which component corresponds to which letter. Also, it is unclear if applicant meant to substitute the imide nitrogen “by” a hydroxyl group, in which case there would be no nitrogen left in the polymer.

7. Claims 8-10 provide for the use of the material; but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. “A method of use” is not a statutory category and should be replaced by the more conventional terminology: “A method of using”.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

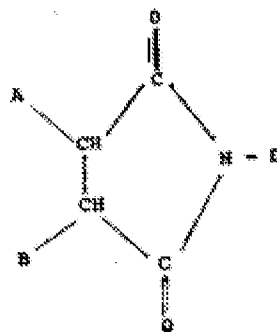
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claims 1 - 7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Patzschke et al (GB 1 591 321), hereinafter "Patzschke".

10. Patzschke discloses (claims 1,4,11, 12, page 6, lines 6 – 12, page 7, lines 27 – 39) a resin which contains units derived from ethylenically unsaturated dicarboxylic acid imide. The resin contains a group with the formula shown below:



Formula I

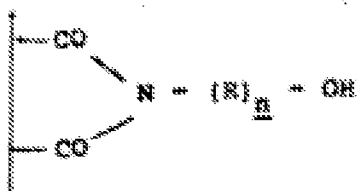
where through A and B, or A alone, in which B represents a hydrogen atom, form part of a copolymer, an olefin polymer oil or a condensation polymer, and D represents a group containing a basic tertiary nitrogen atom or a group containing a masked polyisocyanate.

Patzschke's A or B teach starting materials from natural unsaturated oils or by complete esterification of conjugated or isolated unsaturated fatty acids with polyalcohols (page 3, lines 9 - 24) which correlate to applicant's olefinically unsaturated substances A. The ring structure

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corresponds to applicant's olefinically unsaturated cyclic acid B and hydroxylamine C which are converted into an acid imide group. Patzschke's ring structure is derived from unsaturated dicarboxylic acid anhydrides (page 3, lines 25 – 34) such as used by applicant. The hydroxyl-functional component in Patzschke is achieved by reacting the carboxyl group with a monoepoxide or preferably by reaction with hydroxy alkylamines or hydroxy arylamines (page 4, lines 18 – 22).

11. Further, Patzschke discloses (page 4, lines 23 -25, page 7, lines 40 - 42) the formula shown below, where R is a $(CH_2)_n$ group and $n = 2$ to 6:



Formula II

12. The above formula corresponds to applicant's ABC structure which includes a hydroxyl group in the hydroxylamine component of the polymer and has at least two carbon atoms.

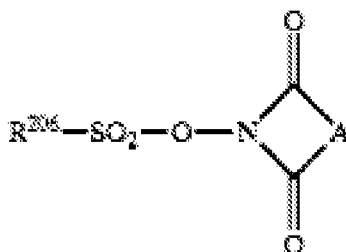
13. Regarding claim 7, Patzschke discloses component D, in formula I above (and page 2, lines 18 - 20, page 6, lines 40 – 41, page 7, lines 1 – 11, and claims 1, 4 and 19), representing a group which contains a hydrogen atom reactive with a masked polyisocyanate, corresponding to applicant's reactive OH group with an isocyanate group. The reactions described correspond to the applicant's functionalization of the N-OH moiety with polyisocyanates.

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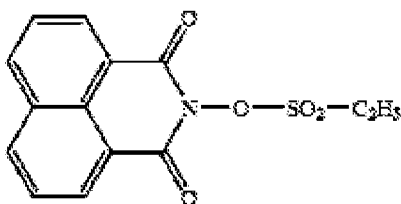
14. Regarding claim 10, Patzschke (page 1, lines 6 – 9 and claim 19) discloses that the above imide-isocyanate composition can be used as a binder.

15. Claims 7 is rejected under 35 U.S.C. 102(e) as being anticipated by Shirakawa et al (US 2004/0197702).

16. Shirakawa teaches (page 21, paragraph 0113 and 0114) a compound, shown below, which correlates to applicant's ABC, where the hydroxy imide group is reacted with an alkyl sulfonic acid group,



where R²⁰⁶ represent substituted or unsubstituted alkyl or aryl groups, and A represents a substituted or unsubstituted alkylene, alkenylene or arylene group. For example (page 22, bottom of right column):



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17. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Allowable Subject Matter

18. Claims 8 and 9 are allowed. The following is a statement of reasons for the indication of allowable subject matter: The Prior art as best shown above teaches the synthesis of a hydroxy imide group within an ABC compound, such as applicant's, with an acid to form an ester but fails to teach said acid as a polyacid, so that the reaction products contain at least one acid group per molecule. The idea of having free acid groups would be contrary to the function of the material as a polyol. Prior art also fails to teach an isocyanate-acid group and an isocyanate-olefinically unsaturated group that forms a chain extension to the hydroxy imide part of the molecule.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frances Tischler whose telephone number is (571)270-5458. The examiner can normally be reached on Monday-Friday 7:30AM - 5:00 PM; off every other Friday.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 4174

Frances Tischler
Examiner
Art Unit 4171

/FT/